

## 2021 Appstore Experience Final Review

amazon benchmarking

### Purpose

The purpose of this study was to assess three experiences related to the Amazon Appstore – consumer experience on 3P devices, consumer experience on 1P devices, and developer experience on 1P devices – as well as to analyze customer demographics and purchase/return behavior. In addition to performing this research on the US Appstore, we analyzed the CX on 3P (mobile) devices in JP. We originally planned to include DE, but decided a more holistic DE study would be of greater value (delivery expected in Q3).

This document contains the highest impact findings, recommendations and business questions. The Appendix contains additional findings, supporting screenshots and tables.

### Methodology

During study scoping, the business team prioritized a subset of devices / experiences to study: consumer experience on streaming media players (1P), consumer experience on mobile phones (3P), and developer experience on 3P devices. Tablets were not in scope for this study. Moreover, we partnered with the D2AS Research team, which leveraged internal Amazon data to synthesize insights on customer demographics and purchase/return behavior.

- **Consumer experience on mobile (3P) and streaming media player (1P) devices:** We performed first-hand testing of the end-to-end user experience on selected mobile devices (iPhone X for Apple App Store, LG K30 for Google Play Store and Amazon Appstore) and 1P streaming media players (Fire TV Stick 4k for Amazon Appstore, Apple TV for Apple App Store, Chromecast for Google Play Store). We analyzed the consumer experience on 1P devices in the US and on 3P devices in both the US and JP.
- **Developer Experience:** We interviewed five app developers with experience at small and large studios (e.g., Blizzard) and reviewed documentation from each app store along with light testing of the developer portals to dive into interviewee feedback. The developer experience portion of this study was scoped as “light-touch” and intended to potentially set up a more holistic end-to-end study of the developer experience in the future.
- **Appstore customer demographics/behavior:** We analyzed internal Amazon data (Heartbeat, Data Decoration Service, Hubble).

### Findings Summary

Focus Area	Amazon Performance	Findings Overview
Customer Experience on Mobile Phones (3P)	⊗ Trailed competition, Some Opportunities	Amazon had significantly fewer apps (456k) than Apple (1.85m) or Google (2.65m). However, Amazon's Appstore stood out because its digital currency (Coins) allowed users to purchase apps / IAPs at a discount. In contrast, Apple offered no digital currency and Google's Play Points rewards program did not provide a meaningful discount. Amazon and Google also compared favorably to Apple in terms of browser access: both allowed users to purchase apps via browser, while Apple did not. Amazon's opportunities for improvement included the Appstore sideload process instructions (including screenshots that match Android instructions), detail page content (including more user privacy disclosure and IAP prices), parental control functionality (restricting content by maturity rating), refunds (allowing requests via Appstore), and payment management capabilities within the store. <i>[Note from Business Leader: Amazon's 3P Appstore strategy is not to compete with Apple &amp; Google for the same customers, but to focus on a niche including high-spending gamers].</i>
Customer Experience on Streaming Media Players (1P)	= Met competition, Some Opportunities	All three streaming media player (SMP) app stores featured fewer apps and games than their mobile versions (all had <3% as many apps as the corresponding mobile stores). Amazon's SMP Appstore voice search results stood out due to the scope of results returned: similar results in terms of content, similar-sounding content (e.g., saying “Peloton” returned the movie “Platoon” from Prime Video), and ability to search the term via YouTube, web, or Amazon Music. Amazon's opportunities for improvement included app categorization (seven of the 27 app categories prominently displayed miscategorized apps), search results for apps not available in the store (Amazon did not return similar apps), and allowing refunds via the store.
Customer demographics & spend,	N/A	Based on internal data, the largest demographic difference between Amazon's SMP and mobile Appstore customers was gender: 62.6% of SMP customers were female vs. 40.2% of mobile customers. SMP high spenders (\$10k+ p.a.) were more likely to be female, older, and relatively

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contact, and return habits		lower income while mobile high spenders were more likely to be male and middle aged. Within SMP and mobile device reviews that mentioned the Amazon Appstore, the most frequent customer complaint was availability / selection of apps (235 out of 1,970 for SMP; 15 out of 60 for mobile). Meanwhile, of 37.6k analyzed Appstore-related Heartbeat contacts, refund / returns and issues claiming IAPs made up 39.5% and 39.4% of contacts, respectively. Of those refund requests, 53.7% were driven by apps / IAPs not working and 25.5% by accidental orders.
Developer Experience	= Met competition, Some Opportunities	Per our interviews, app developers' choice of store was made based primarily on the installed base. Developers perceived Google as having the most users, Apple users as more willing to spend money, and Amazon was seen as an afterthought. However, developers reported that the Amazon Appstore's strengths were that it was easier to port to after an app was built for the Google Play Store (vs. porting to Apple), that Amazon (and Google) offered an easier testing environment than Apple (in part because developers could send APK files for testing), and that Amazon (and Google) was known for keeping a more consistent interface for managing users / apps, while Apple made changes more frequently. Developers attested that Amazon's opportunities for improvement included providing more reader-friendly reporting (the current provision of data in CSV files lagged Apple and Google's dashboards / reports), and better informing users of apps updates (which could be important for games where updates were expected to drive IAPs).

## Recommendations

### R1. WEB INSTRUCTIONS FOR SIDELOADING

**Finding:** Apple and Google's app stores came pre-installed on iPhones and Androids, respectively, while accessing Amazon's Appstore required sideloading via a web browser. The Amazon Appstore download page gave clear instructions for the user to 1) "Turn on Unknown Sources" (within the *Download Sources* section of settings) and 2) "Install app." However, the picture under "Turn on Unknown Sources" did not match the settings for numerous Android phones we tested (LG K30, Galaxy S9, Samsung Galaxy S20, Pixel 3, ASUS Zenfone Max M2). Users needed to figure out how to allow downloads from unknown sources on their own.

**R1.** Update the web instructions on the 3P Appstore download page so the images match Android phone settings.

**Response:** [Jon Rhome] We agree with this recommendation. It will be prioritized as part of the 2021 roadmap during. ETA for photo and instruction update is June 2021.

Action	Owner	Due Date
Update web instruction on 3P Appstore download page.	@Jon Rhome	06/01/2021

### R2. UPDATE 3P APPSTORE DETAIL PAGES

**Finding:** All three app stores' detail pages (DP) included similar information, but Apple's DP stood out for prominently explaining the privacy policies associated with the user's data. Apple's DP included an *App Privacy* section which was made up of: Data Used to Track You, Data Linked to You, and Data Not Linked to You. Each of these components listed the types of data that fit into each list (e.g., *Final Fantasy XV*'s DP indicated that purchases made in the app could be used to track the user across apps and websites). Conversely, users reviewing the Amazon and Google DPs were only presented with links to privacy policies on the developers' websites. These links were not prominently displayed (neither was presented on the DP home page) and the privacy policies were written in user agreement-style legalese, making the policies difficult to understand. Google's detail pages stood out for including more information than Amazon or Apple's: price ranges for in-app purchase costs, indications that there were in-app ads, and granular game ratings (each game was rated along: gameplay, graphics, and controls).

**R2.** Consider updating 3P Appstore detail pages to include: price ranges for in-app purchases, indications that there are in-app ads, granular game ratings, whether users need to purchase a subscription to unlock the app, and comprehensive app privacy explanation.

**Response:** [Jon Rhome] We will consider updating the detail pages as part of a larger effort to modernize and direct the Appstore towards our gamer cohort. We are currently scoping this effort to provide an ETA on implementation (DFD 4/16).

Action	Owner	Due Date
Update 3P App Store detail pages to include additional details.	@Jon Rhome	DFD 4/16/2021

### R3&4. PARENTAL CONTROLS & KIDS+ APP

**Finding:** Amazon's Parental Controls differed significantly from those of Apple and Google. For the mobile app stores, Apple and Google allowed parents to restrict downloading of certain apps (and other content) in their stores by only allowing downloads of









